



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,590	08/22/2003	Hidekazu Michioka	2003P12857US	8583

7590 03/09/2009
SEIMENS CORPORATION
INTELLECTUAL PROPERTY
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

EXAMINER

KIM, CHRISTOPHER S

ART UNIT	PAPER NUMBER
----------	--------------

3752

MAIL DATE	DELIVERY MODE
-----------	---------------

03/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/645,590		MICHIOKA ET AL.	
	Examiner		Art Unit	
	Christopher S. Kim		3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-19, 22 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19 and 22 is/are rejected.
- 7) ☐ Claim(s) 14-18 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 13, 2008 has been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "passages having ends disposed on a common plane at the fuel outlet with an angle between centers of adjacent ends being substantially 90 degrees" recited in claim 19 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

Art Unit: 3752

number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claims 14-18 and 24 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 3752

6. Claim 19 and 22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 19 recites the limitation "...the passages having ends disposed on a common plane at the fuel outlet with an angle between centers of adjacent ends being substantially 90 degrees,....an end of each one of the plurality of passages is at a different distance from the longitudinal axis than an end of each one of the other passages..." The disclosure, as originally filed, fails to teach the angle between centers of adjacent ends being substantially 90 degrees. The specification teaches a common exit for the passages, e.g., page, 5, lines 28-29, "The modified seat 140 has a two inclined passages 141 and 142 which terminate into the exit passage 143." Page 1, lines 30 discloses "a fuel outlet." See also figure 3A. The specification teaches, on page 6, lines 26-27, "The passages 151, 152, 153 and 154 are also each at an inclination angle α (not shown) relative to the longitudinal axis¹⁸. Presumably, the end of the passages being a different distances from the longitudinal axis is in reference to the upstream end of the passages. How do four passages having equal inclination angles and having different upstream distance from the longitudinal axis intersect at a common outlet and have 90 degrees between them? Claim 22 recites a similar recitation.

Art Unit: 3752

7. Claims 19 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 recites the limitation "...the passages having ends disposed on a common plane at the fuel outlet with an angle between centers of adjacent ends being substantially 90 degrees,....an end of each one of the plurality of passages is at a different distance from the longitudinal axis than an end of each one of the other passages..." It is uncertain how the passages can be 90 degrees from each other, have the same inclination angle relative to the longitudinal axis, and have upstream ends at different distances from the longitudinal axis. Claim 22 recites a similar recitation.

Claim Rejections - 35 USC § 102/103

8. Claims 19 and 22 (as best understood) are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Naitoh et al. (5,540,200).

Naitoh discloses a method comprising:

engaging a tip of a needle 6 against a surface of a seat 9 to form a seal;

providing the seat 9 with a plurality of passages 12, 13 between the surface and a fuel outlet 9b, A, B;

the passages 12, 13 having ends that terminate into a seat exit passage 9b, A, B disposed at the fuel outlet 9b, A, B;

Art Unit: 3752

each of the plurality of passages 12, 13 having a central axis X1, X2
having an angle of inclination relative to the longitudinal axis C;
an end of at least one 12 of the plurality of passages 12, 13 is at a
different distance from the longitudinal axis C than the ends 13 of the other passages;
supplying fuel.

See figure 37 showing four passages.

Even if Naitoh does not disclose θ_1 , θ_2 , θ_3 , θ_4 being equal, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided equal angles in Naitoh, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Double Patenting

9. The terminal disclaimer filed July 17, 2006 fails to comply with 37 CFR 1.321 because it is not signed by an attorney of record.

10. Claims 14-19 and 22-24 (as best understood) are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 13-19 and 22-24 of U.S. Patent No. 6,799,733. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of '733 fully discloses the claimed invention of the present application. The '733 claims recite further details than the presently claimed invention, i.e. the currently claimed invention is broader than the '733 claims. The absence of the detailed features are a

Art Unit: 3752

mere elimination of parts/features and its function. It has been held that omission of an element and its function in a combination where the remaining elements perform the same functions as before involve only routine skill in the art. *In re Karlson*, 136 USPQ 184.

Response to Arguments

11. Applicant's arguments with respect to claims 19 and 22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. Kim whose telephone number is (571) 272-4905. The examiner can normally be reached on Monday - Friday, 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571) 272-1184. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3752

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Christopher S. Kim/
Primary Examiner, Art Unit 3752

CK